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PHILOSOPHICAL TRANSACTIONS.

May 26. 1677.

The CONTENTS.

Extract of three Letters of Dr. Wallis, concerning an unusual Meteor seen at the same time in many distant places of England. Communications touching four sorts of factitious Shining substances. Divers Letters about the late Comet, from Signor Cassini, Monsieur Hevelius, and Mr. Flamstead. An Account of Four Books: I. The Natural History of OXFORD-SHIRE, &c. By Robert Plot, LL. D. II. L'ARCHITECTURE NA VALE, avec le ROUTIER des Indes Orientales & Occidentales; par le Sieur Dassié. III. Philosophical Dialogues concerning the Principles of Natural Bodies; by W. Simpson, M. D. IV. A New Treatise of CHEMISTRY; written in French by Christopher Glaser, and now Englished by F. R. S. An Advertisement of a New Mapp of England.

An Extract of Two Letters, written by Dr. Wallis to the Publisher the 20th and 30th of January last, concerning a considerable Meteor seen in many distant places of England at the same time †.

† This was not published sooner, because more particulars were expected both from other places of England, and from Foreign parts.

S I R,

I Do not know, whether in your Transactions you have any where taken notice of that unusual Meteor which happened on Wednesday Sept. 20th. last past, about Seven of the clock at night or soon after; which, though it seemed very low, was

seen in most parts of *England* much at the same time, and much in the same manner. I hear of it from divers persons who saw it in *Oxford*, *Northamptonshire*, *Gloucestershire*, *Worcestershire*, *Somersetshire*, *Hampshire*, *Kent*, *Essex*, *London*, &c. and I doubt not but you have heard of divers more. Some here call it a *Draco volans*. I have sometimes been fancying, it might be higher than they imagined, only casting a light so low. And if I had heard any thing from it abroad, should have inclined to think it a *Comet*, passing swiftly by us, very near the Earth, even through our Air. But, if it had been so, it must be a very little one, or else we should have heard more of it.

A Third Letter from the same hand, concerning the same Meteor.

Oxford, May 8. 1677.

S I R,

I Remember that in *January* last I wrote you two Letters, concerning an unusual appearance which had here happened not long before, on Wednesday *Septemb. 20th. 1676*, between seven and eight of the clock at night. In the dusk of the Evening (about Candle-lighting) there appeared a sudden light, equal to that of Noon-day; so that the smallest pin or straw might be seen lying on the ground. And, above in the Air, was seen (at no great distance as was supposed) a long appearance as of fire; like a long arm (for so it was described to me) with a great knob at the end of it; shooting along very swiftly: and, at its disappearing, seemed to break into small sparks or parcels of fire, like as Rockets and such Artificial Fire-works in the Air are wont to do. 'Twas so surprizing, and of so short continuance, that it was scarce seen by any who did not then happen to be abroad. 'Twas judged, by him from whom I first heard of it, (for I had not the hap to see it my self,) to continue about two or three minutes: But, I find he took a minute to be a very short time, (little more than a moment.) From others I am told, it was scarce longer than while one might tell fifteen or twenty at the most; which will be less than half a minute. All this might happen well enough from some Fiery *Meteor* in our Air; as a *Draco volans* (as some have been pleased to call this) or the like. But that which makes it to me the more surprizing, is this; that I find the same to have been seen in most parts of *England*, and at or near the same

same time : As, not only in *Oxford* and *Oxfordshire* , but also in *Northamptonshire*, *Gloucestershire*, *Worcestershire*, *Somersetshire*, *Devonshire*, *Hampshire*, *Sussex*, *Surrey*, *Kent*, *Essex*, and (particularly) by the Water-men on the *Thames* in their passage between *Gravesend* and *London*. In how many other parts of *England*, or in what parts out of *England* it might be seen ; I have not yet heard. But this is a great breadth of ground, and too much for an ordinary Meteor in our lower region of the Air to be seen in at once : Yet (for ought I hear) it is agreed by all to have been seen at the same time, between seven and eight at night the same day , in the dusk of the Evening. Which argues , that either it was higher than they imagined, (though the light of it reached the Earth) or else, that it had a very swift motion. This made me then conjecture , (what in those Letters I signified,) that it might be some small Comet, whose *linea trajectoria* passed very near our Earth , or upon it. And I therefore enquired from you, what news might be heard of it from beyond the Seas , or in parts of *England* further off, and what more particular account thereof you might have from the variety of your Correspondents. For I judged it not improbable, that it might, when further distant from us, appear in the form of a Comet. That Comet , which hath now appeared , in this and the last month , confirms me in the same opinion ; which I conjecture may be the very same which passed by us in *September* last. Why it was not sooner seen, I cannot tell ; save, what is the common fate of most Comets , that they are seldom observed till after their nearest distance from us : And , perhaps, it may have been so near the *Sun* (as to its visible place) as not to be much above our Horizon save in the day time. And for the like reason it may be, that in *September* last, when it passed by us , it was not more seen abroad in other parts ; it might pass them in the day time , being but in the *Twy-light* with us ; and , had it been one hour sooner , the day-light would have hindred us from seeing it. Which way its motion was when near us , I cannot conclude, so as to satisfy my self. For most that saw it, being suddenly surprised , took little more notice of it than that it suddenly appeared and was suddenly gone , but saw it so little time as scarce to mark which way. By the account I had from one in *Northamptonshire*

shire (between *Brackley* and *Banbury*,) it should seem to have moved there towards the South-west. By the account I had from one who saw it in *Hampshire* (between *Winchester* and *Southampton*) it should seem to be towards the South east ; from others I have nothing of certainty, and therefore can conclude nothing. (Its motion might then seem to us the swifter, if its proper motion were then one way; and the Earths motion here, at the same time, contrary to it. And it is not impossible, that its dashing against the Earth might disturb its motion ; as when Clouds, in their passage , meet with Mountains.) By this time I suppose it may be gotten so far from us that its apparent motion is very little. And so late it was before we heard of it here, and it is now so small, and so near the Sun, and the weather withal hath been so cloudy , that I (and some others who would willingly have seen it) have not had the hap to see it at all. My conjecture upon the whole, though perhaps but a conjecture, hath at least so much of probability in it, as to deserve some consideration : and may serve (if true) to give us some light into the nature of Comets ; which perhaps will seldom have been found to come so near us , as this seemis to have done. I add no more, but that I am

Yours, &c.

John Wallis.

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